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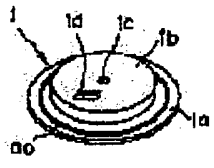
(54) METHOD FOR APPLYING ADHESIVE

(57)Abstract:
PURPOSE: To obtain a uniform coated surface by applying an adhesive with an extremely simple method.
CONSTITUTION: A flange 1a is provided to a center core 1 to stick the peripheral edge of the circular hole furnished at the center of a magnetic disk. A requisite amt. of adhesive is discharged from a discharge nozzle fixed at a specified position, the center core 1 is turned plural times to form an annular adhesive surface a0 on the flange 1a by applying the adhesive.



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CLAIMS

[Claim(s)]

[Claim 1] The method of application of the adhesives characterized by carrying out multiple-times rotation of the aforementioned coated member, and forming the adhesion side of the shape of an aforementioned annulus ring, fixing the position of this regurgitation nozzle for adhesives with constant-rate discharge from the aforementioned regurgitation nozzle in the method of application of the adhesives which form an adhesion side in a circle for adhesives by instillation from a regurgitation nozzle rotating a coated member.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] this invention relates to the method of application of the adhesives to the flange of the pin center,large core of a magnetic disk cartridge especially about the method of application of adhesives.
[0002]
[Description of the Prior Art] The parts of various products etc. are fixed or adhesives are used for generally joining together in various fields. When using these adhesives so much, in various plants, it contains in the adhesives container of a suitable sealing system etc. so that a lot of adhesives may not be hardened from the point of a productivity, and this adhesives container and application equipment are connected by the suitable liquid-sending system, and the technique to which the specified quantity regurgitation of the adhesives is carried out may be taken by pressurizing the adhesives in this adhesives container.
[0003] and the disk-like MAG sheet as magnetic recording or a medium for regeneration is shown in drawing 8 in the magnetic disk cartridge contained free [rotation] -- as -- the center of the magnetic sheet 2 -- a hole is inserted in the pin center,large core 1 fabricated by the so-called hat type, and is stuck on flange 1a of this pin center,large core 1 In order to stick this magnetic sheet 2 and flange 1a of the pin center,large core 1, technique of making a double-sided tape intervening among both, the technique of using special adhesives, etc. are performed conventionally. Although adhesive power is excellent in the technique using a double-sided tape, since it becomes cost quantity, the technique of applying adhesives to flange 1a of a pin center,large core in a circle using the coater (henceforth a dispenser) which breathes out adhesives from a nozzle is adopted.
[0004] however, the configuration of adhesives as shown in drawing 5 , in case adhesives are applied to flange 1a of the pin center,large core 1, until the point of the adhesives which come out of the nozzle 3 of a dispenser adheres to flange 1a page after valve opening of the dispenser which supplies adhesives quantitatively -- adhesives a1 of eye ****** **** -- gradually -- sphere-like adhesives a2 It is in the inclination which grows and goes. Therefore, adhesives a3 in an application start point As it sets and it is shown in drawing 6 , it is the application width of face d1. It will become broad partially. Therefore, application configurations in a circle as shown in drawing 7 , after the pin center,large core's 1 rotating one time and stopping supply of adhesives are the adhesives a3 in an application start point, even if it is going to make it the necessary application width of face d2. It is the broad application width of face d1 partially. It will remain as it is.
[0005]
[Problem(s) to be Solved by the Invention] The application width of face in a circle after the above-mentioned adhesives application is the above-mentioned application width of face d1 by inspecting by the laser beam etc., rotating the pin center,large core 1. Especially a broad thing is removed as a defective in this check phase, and is made to avoid the flash and the uneven adhesion nonuniformity of partial adhesives at the time of adhesion with the magnetic sheet 2 and the pin center,large core 1. However, when the coverage of adhesives is increased, although it becomes strong, since the application width of face in the above-mentioned application start point becomes large, adhesive power has the problem become

easy to come out of a defective. Rotational speed is controlled there to become late gradually continuously early in early stages of an application about the rotational speed of the pin center,large core 1, and how to prevent an expansion of the above partial adhesives can be considered. However, the time which an application of adhesives takes was very short, and the control of the rotational speed for obtaining uniform application width of face is very difficult, and could not acquire sufficient effect, but had problems, such as leading to a cost rise conversely with the control unit by which a highly precise control is demanded.

[0006] It is in the purpose of this invention being made in view of the above conventional troubles, and offering the method of application of adhesives which can acquire a uniform application side by the very easy method of application.

[0007]

[Means for Solving the Problem] The above-mentioned purpose of this invention can be attained by the method of application of the adhesives characterized by carrying out multiple-times rotation of the aforementioned coated member, and forming the adhesion side of the shape of an aforementioned annulus ring, fixing the position of this regurgitation nozzle for adhesives with constant-rate discharge from the aforementioned regurgitation nozzle in the method of application of the adhesives which form an adhesion side in a circle for adhesives by instillation from a regurgitation nozzle rotating a coated member.

[0008]

[For **] In the method of application of the adhesives concerning this invention, since the necessary coverage of the adhesives to a coated member top carries out multiple-times rotation of the coated member while it has been fixed, its amount breathed out from the regurgitation nozzle per unit time decreases, and it can make small the size the drop from a regurgitation nozzle grows up to be. Therefore, compared with the case where it applies by one conventional rotation, the application width of face in an application start point cannot become large, either, but the adhesives applied by 1 rotation scale division can be scratched and opened with the adhesives moreover breathed out after 2 rotation scale division, and it can be made homogeneity application width of face.

[0009]

[Example] Hereafter, the case where two revolutions of coated members are carried out is explained with reference to the drawing 1 or the drawing 4 as one embodiment of the method of application of the adhesives concerning this invention. In addition, the expedient upper same sign of an explanation is attached about the same member as the conventional example. While the pin center,large core 1 which drawing 1 is a decomposition perspective diagram of a magnetic disk cartridge 10, and attached the magnetic disk 2 in one is pinched free [rotation] by the upper half 4 and the lower half 5 made from a resin center-of-rotation boss 1c of the aforementioned pin center,large core 1 shown in drawing 2 , and the pin for position regulation -- circular heights 1b which has 1d of holes -- the center of the bottom half 5 of the above -- a hole -- it fits loosely into 5a, and the front face of the aforementioned circular heights 1b is constituted so that it may expose to the inferior surface of tongue of the bottom half 5 of the above The periphery section is welded and the above top half 4 and the lower half 5 constitute the case of one, after containing necessary parts, such as the aforementioned pin center,large core 1.

[0010] They are the adhesives a0 which flange 1a was formed in the aforementioned pin center,large core 1, were formed in order that this flange 1a might stick the periphery of circular hole 2a usually established in the center of the flexible aforementioned magnetic disk 2 that the magnetic layer is uniformly formed in the inferior surface of tongue at the base in the disc-lik high polymer film, and apply the attachment to the aforementioned flange 1a in a circle. It is carried out.

[0011] As shown in drawing 3 , in order to supply adhesives a on the aforementioned flange 1a, a dispenser 20 is used so that the amount of supply may be performed quantitatively. The aforementioned dispenser 20 is a coater which carries out a constant feeding with the roll control of the rotation axis 21 which has a path the middle also himself for opening for free passage or intercepting the path from the aforementioned feeding pipe 33 to the regurgitation

nozzle 3 for the aforem[redacted]oned adhesives a fed via the regurgi[redacted]on pipe 32 and the feeding pipe 33 from the pressurized container 31 of the adhesives feeding equipment 30. A drive of the aforementioned rotation axis 21 is performed by the stepping motor 23, and the drive control of this stepping motor 23 is carried out by the control unit 22. Moreover, the aforementioned adhesives feeding equipment 30 controls the pressure in the aforementioned pressurized container 31 produced by the compressed air sent from an air compressor 34, and is made to become fixed [the amount of supply of the aforementioned adhesives a per unit time].

[0012] In case the aforementioned adhesives a is applied on flange 1a of the aforementioned pin center,large core 1 using the above-mentioned coater, it sets in this embodiment. It is 0.3mm**0.1mm (however, as for **0.1mm of tolerance, taking to a plus side is desirable.) about path clearance delta at the aforementioned flange 1a which carries out fixed-speed rotation horizontally first, and the nose of cam of the aforementioned regurgitation nozzle 3. It sets up and the amount of the aforementioned adhesives a used to the aforementioned pin center,large core 1 is taken as for 10mg or 20mg.

[0013] Moreover, in this embodiment, since the aforementioned adhesives a of requirements is applied while carrying out the two revolutions of the aforementioned pin center,large cores 1, when using the 10mg of the aforementioned adhesives a now, 0.5mg is breathed out to 1 rotation scale division, and, subsequently to 2 rotation scale division, similarly, 0.5mg is breathed out. Therefore, adhesives a2 of the shape of a sphere which will grow by the time the 0.5mg aforementioned adhesives a breathed out from the aforementioned regurgitation nozzle 3 adheres on the aforementioned flange 1 a-th page, when making the aforementioned flange 1a breathe out 10mg by one rotation A size becomes abbreviation half.

[0014] Therefore, as shown in drawing 4 , they are the adhesives a3 in an application start point. Application width of face d1 Application width of face d2 in a circle It cannot divide ******** but uniform application width of face can be obtained. When the flow rate of the aforementioned adhesives a breathed out between 1 rotations with having set path clearance delta as 0.3mm**0.1mm is halved, this will be applied while the aforementioned adhesives a breathed out has not grown as a ****** drop. Furthermore, the aforementioned adhesives a applied to 1 rotation scale division is scratched and extended by adhesives a breathed out to 2 rotation scale division, and application width of face and application thickness are made uniform. Therefore, in the check of the application side of the above-mentioned adhesives a, it is carried out by moving a laser beam in the orientation of a center from the periphery edge of the aforementioned flange 1a, and measuring the distance to the application side of the aforementioned adhesives a like the conventional example, and the ****** occurrence of the defective crawled by the check was not carried out.

[0015]

[Effect of the Invention] As explained above, the amount breathed out from the regurgitation nozzle per unit time by carrying out multiple-times rotation of the coated member according to this invention, fixing the position of this regurgitation nozzle for adhesives with constant-rate discharge from a regurgitation nozzle decreases, and the size the liquid drop-like adhesives from a regurgitation nozzle grow up to be can be made small. Therefore, compared with the case where it applies by one conventional rotation, the application width of face in an application start point does not become large, either, but ****** occurrence is not carried out with [of the coverage in the application start point of adhesives etc.] a rose, but by the very easy method of application, it can form a uniform application side and can aim at curtailment of a large upgrading and a manufacturing cost.

[Translation done.]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the decomposition perspective diagram of the magnetic disk cartridge which carried out the interior of the pin center,large core stuck by this embodiment and the magnetic disk.
[Drawing 2] It is the perspective diagram of the pin center,large core to which adhesives were applied by the flange.
[Drawing 3] It is the schematic diagram of a dispenser and the whole adhesives feeding equipment.
[Drawing 4] It is the plan of the pin center,large core which applied adhesives by the method of application of this invention.
[Drawing 5] It is explanatory drawing showing growth of the drop of the adhesives by the method of application of the conventional example.
[Drawing 6] It is the plan of a pin center,large core showing the early stages of the adhesives application by the method of application of the conventional example.
[Drawing 7] It is the plan of a pin center,large core showing the completion status of the adhesives application by the method of application of the conventional example.
[Drawing 8] It is the perspective diagram showing the status that the magnetic disk was stuck on the flange of a pin center,large core.
[Description of Notations]
1 Pin Center,large Core
1a The flange of a pin center,large core
1b Pin center,large core heights
1c Center-of-rotation boss
1d the pin for position regulation -- a hole
2 Magnetic Disk
3 Regurgitation Nozzle
4 Upper Half of Cassette
5 Lower Half of Cassette
5a a lower half's center -- a hole
10 Magnetic-Disk Cassette
20 Dispenser
30 Adhesives Feeding Equipment
Liquefied adhesives
a0 Adhesives applied in a circle
a1 Adhesives of a nozzle to **********
a2 Adhesives which grew in the shape of a sphere
a3 Adhesiv s in an application start point
d Ita Path clearance of a nozzle and a flange face

[Translation done.]